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## (U) Infectious Disease Alert

(DI-1812-1149-06, 05 Jun 2006)

#### **Pakistan**

(U) Disease: Acute diarrheal syndrome

(U) Date: Mid May 2006

(U) Location: Faisalabad

(U) Significance: Informational

#### **Summary:**

(U) The press reported approximately 35,000 cases (9 deaths) of gastroenteritis in the city of Faisalabad and surrounding communities in eastern Pakistan. The outbreak was first reported in mid-May. More than 19,000 patients have been admitted to government hospitals. Local Ministry of Health and Water and Sanitation Agency (WASA) officials attributed the outbreak to sewage contamination of potable water supply pipes, which are aged and experience regular, low-grade seismic activity; leakage from one system to the other is common through cracks and breakages.

(U) Local health officials are providing education for the local population on avoiding exposure to contaminated water. On 25 May 2006, the provincial government disbursed approximately U.S. \$10 million to WASA Faisalabad for replacing the potable water pipes and providing clean drinking water.

### **Assessment:**

(U) While this outbreak of gastrointestinal illness is large, AFMIC assesses outbreaks involving several thousand people are not unusual in Pakistan (see Infectious Disease Alert <u>DI-1812-894-05</u>). Sanitation is poor throughout the country, including major urban areas. Local food and water sources, including ice, are heavily contaminated with pathogenic bacteria, parasites, and viruses. Enterotoxigenic *Escherichia coli*, *Campylobacter spp.*, *Shigella spp.*, and *Salmonella spp.* likely are involved in this outbreak. As demand for water increases during the coming summer months, the supply of fresh water will continue to decrease, further compounding the problem.

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(U) Despite U.S. \$66 million infusion of funds from the Asian Development Bank to completely reengineer Faisalabad's potable water system, the system will likely remain vulnerable to cross-contamination and other water potability issues for some time as planned upgrades will take many years.

#### Risk to U.S. Personnel:

(U) An operationally significant attack rate (potentially over 50 percent per month) of bacterial diarrhea could occur among personnel consuming local food, water, or ice. Field conditions (including lack of handwashing and primitive sanitation) may facilitate person-to-person spread and epidemics.

# **Appendix**

- (U) The Infectious Disease Alert provides timely alerts and updates on militarily significant infectious diseases.
- (U) This product is now available on the Internet at http://mic.afmic.detrick.army.mil, on SIPRNET at http://www.afmic.dia.smil.mil/intel/afmic/afmic.html, and on Intelink at http://www.afmic.dia.ic.gov/intel/afmic/afmic.html.

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### UNCLASSIFIED UNCLASSIFIED Northern North-West Areas Frontier KABUL 0 Peshawar ISLAMABAD Azad Federally Kashmir Administered Tribal Areas isiamabad AFGHANISTAN Faisalabad PAKISTAN Quetta • Punjab Balochistan INDIA (U) Waterborne Disease Outbreak in Punjab Province, Pakistan May 2006 City reporting waterborne disease cases 62.5 125 250 375 Info Cutoff Date: 2 June 2006 Kilometers